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The consequences of terrorism on migration attitudes across Europe¹

Enzo Nussio², Vincenzo Bove³, Bridget Steele⁴

How do terrorist attacks influence migration attitudes? We argue that the influence of attacks depends on the location of whoever receives the terrorist news, and derive two hypotheses from this logic of spatial conditionality. First, if terror attacks affect citizens' views of migration through sensations of imminent danger and fear, then proximity to the terrorist attack would be the main conditioning factor. Second, rather than distance to attack, the local migration context of the news receiver might condition the effect. In homogenous societies with little immigration experience, citizens may be more receptive to discourses linking migration to terrorism and thus more susceptible to negative attitude change. We evaluate the observable implications of these claims with the 2015 Bataclan attack using data from a Eurobarometer survey. This data was collected right before and after the attack which allows for a quasi-experimental research design. In line with the migration context hypothesis, we find more negative attitudes toward migrants and refugees particularly in countries with relatively homogenous societies and few immigrants. No evidence was found to support the proximity to attack hypothesis. These results have important implications as the public discourse of a migration-terrorism nexus has shaped the policy debate in Europe.

Declarations of interest: none

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The impact of terrorism on migration attitudes is important given that negative views of immigrants, discrimination and Islamophobia (Helbling, 2013) can destroy trust in security institutions among foreigners (Gillum, 2018), fuel radicalization (Doosje et al., 2016), and, ultimately, affect policy (Hetherington & Suhay, 2011). For example, terror attacks make citizens more supportive of restrictive immigration policy (Finseraas, Jakobsson, & Kotsadam, 2011) and engagement against terrorists abroad (Merolla & Zechmeister, 2009). As a result of continuous political debate, the perception that migration and terrorism are linked is common among the general European public, although there is no evidence to support a linkage between the two (Bove & Böhmelt, 2016; Dreher, Gassebner, & Schaudt, 2017).

How do terrorist attacks affect citizens' attitudes towards migration across space? More negative attitudes about migration, especially Muslim immigrants (Creighton & Jamal, 2015; Spruyt & Elchardus, 2012), are found not only in directly targeted countries but also in countries that were not the targets of terrorist attacks. For the case of the 9/11 attacks in the US, a plethora of studies have examined the effects within the US (Huddy, Feldman, & Weber, 2007; Woods, 2011) and beyond. Germans showed increased anti-foreigner sentiments after the 9/11 attacks in the US (Schüller, 2016), while no signs of discrimination have been observed in Sweden after the same attack (Åslund & Rooth, 2004). Attacks in Mumbai in 2008 and Bali in 2002 affected respondents' attitudes and feelings in some European countries, mainly their fear of terrorism and to a limited extent also their views on immigration (Finseraas & Listhaug, 2013; Legewie, 2013). For the case of Israel, direct exposure to terrorism has been shown to be related to both stress and exclusionary attitudes toward out-groups (Canetti, Halperin, Sharvit, & Hobfoll, 2009). And a limited, but emblematic event, like the knife attack against Dutch filmmaker Theo van Gogh in 2004, influenced anti-immigration attitudes in some European countries but not in others (Finseraas et al., 2011). Hence, while previous studies have identified varying effects of terrorism on migration attitudes across space, theorizing about the reasons for this variation and analysis about it remains limited.

In this article, we see terrorist attacks as a form of communication and argue that the characteristics of the location of the receivers of the terrorist message matters. Developing earlier findings, we propose to study two mechanisms through which location can condition the effects of terrorism on migration attitudes. First, the effect can depend on the receivers' closeness to the attack. If migration attitudes are mainly driven by negative emotions like feelings of imminent danger and fear, then we can expect people located more closely to the attack to be most negatively affected (Burke, Kosloff, & Landau, 2013). We call this the proximity to attack hypothesis.

Second, the effect can depend on the receivers' local context. For our question, the local migration context is particularly relevant. If migration attitudes are generally driven by the experience of local residents with migrants (Enos, 2017), then we can expect citizens located in areas with little immigration to be most negatively affected. Residents of such areas are most susceptible to changing their opinions with regard to migrants and most receptive for public discourses linking migration to terrorism, as they have little own experience with migrants and are thus more inclined to view them as threatening. Residents of more heterogeneous societies with a long-standing migration tradition are less susceptible to abrupt changes in attitudes (Stephan & Stephan, 2000). We call this the migration context hypothesis.

This theorizing provides us with two clear observable implications. According to the proximity to attack hypothesis, a terrorist attack should exert a more negative influence in areas closer to the attack. According to the migration context hypothesis, a terrorist attack should exert a more negative effect in areas with little immigration experience. While these two implications are derived from two distinguishable theoretical mechanisms, they are not mutually exclusive.

We examine these observable implications with the example of the coordinated terrorist attacks of November 13, 2015 in Paris, including the attack on the Bataclan concert hall. This was the most severe terrorist attack in the West in recent years, taking the lives of 130 people. ISIS later claimed responsibility for the attack. While journalistic accounts and the public debate suggest that this particular attack had a large effect on people's views all over Europe, the spatial dimensions of its consequences and "contextual vulnerability" are not clear yet (Castanho Silva, 2018).¹ For our endeavor of identifying the geographic conditioning of the consequences of terrorism, a massive shock that affected the whole of Europe, such as the Bataclan attack, provides an ideal case.

We employ a quasi-experimental design and exploit the fact that the Eurobarometer survey started shortly before the Bataclan terror attack in Paris and ended a few days later. As such, by examining citizens' responses about migration shortly before and after the attack, we significantly reduce the simultaneous effect of alternative trends and confounding factors. We use data about geographic distance from the attack across Europe to examine the proximity to attack hypothesis. For the migration context hypothesis, we use the percentage of refugees and migrants across European countries and data on net migration at the regional level. With these variables, we can examine whether the proximity to the attack and the migration context can

¹ Other existing studies about the Bataclan attack have mostly focused on effects within France and come to mixed conclusions (Brouard, Vasilopoulos, & Foucault, 2018; Coupe, 2017; Goodwin, Kaniasty, Sun, & Ben-Ezra, 2017; Jungkunz, Helbling, & Schwemmer, 2018; Oksanen et al., 2018).

mitigate or exacerbate the effect of terrorism on migration attitudes, adjusting for a series of individual and regional characteristics.

Two main results emerge. First, our results suggest that, across Europe, attitudes toward migration are most influenced in areas with relatively homogenous societies and little immigration experience, in line with the migration context hypothesis. Second, proximity to attack did not increase the effect of terrorism on migration attitudes across Europe (and also not within France), against the implications of the proximity to attack hypothesis. In fact, we find that more negative attitudes towards immigrants are found in countries that are the furthest away from France. If anything, this confirms that the receivers' local historical, cultural or social context prevails and trumps spatial proximity.

The public debate about immigrants and refugees in Europe was rather negative during the summer of 2015, which coincided with a large-scale refugee crisis and the recent surge in the number of asylum seekers in Europe. This environment may have contributed to a public discourse connecting migration to terrorism. Viktor Orbán, Hungary's prime minister, later (in March 2017) announced that, "We are still under attack. [...]. Migration is the Trojan wooden horse of terrorism. The people that come to us don't want to live according to our culture and customs but according to their own at European standards of living." (The Guardian, 2017). The findings of this paper have to be interpreted against the backdrop of this broader political debate which was ongoing before and after the Bataclan attack.

Our findings contribute to the growing scholarly literature on how public attitudes are formed and shaped in response to large-scale traumatic events (Janoff-Bulman & Usoof-Thowfeek, 2009), and can help informing effective strategies to mitigate the wider political and social impact of terrorism. While we focus here on short-term effects of one terrorist attack and temporal distance can moderate the effects of terrorism (Choma, Jagayat, Hodson, & Turner, 2018; Economou & Kollias, 2018; Mancosu, Cappiali, & Ferrin, 2018), such effects may still be consequential as politicians use the extraordinary situation of a terror attack to make important decisions that may stick. The example of the Bataclan attack is instructive for this point: the French government has declared a state of emergency in the immediate aftermath of this attack, granting special powers to the executive branch. This state of emergency was revoked only two years later (The Independent, 2017).

In the remainder of this article, we first introduce the proximity to attack and migration context hypotheses in more detail. Second, we present our quasi-experimental research strategy, the Eurobarometer survey indicators, and the additional data used for the analysis of our hypotheses. Third, we present the results of our analysis mainly drawing on marginal effects

plots to visualize the conditioning effect of proximity and migration context. Finally, we conclude by pointing to the implications of our study for scholarly research and policy.

Theory

Terrorist attacks are here understood as a form of communication (Kydd & Walter, 2006; Matusitz, 2012; Pape, 2003). We argue that the location of the receivers of the terrorist message matters for their attitude formation and focus on two ways this could play out. First, the consequences of terrorist attacks on attitudes can be mitigated by the distance to the sender of the message. Citizens in areas located closer to the attack would then be more affected. Second, consequences on attitudes can be also moderated by the receivers' local context. The effect would then depend on the contextual characteristics of whoever receives the terrorist message, independent of whether the attack happened in their vicinity. This broader argument about how space conditions the consequences of terrorism is relevant for the question of migration attitudes.

Physical proximity to attack is an intuitive mechanism for explaining consequences of terrorism on attitudes. The closer an individual is located to a terrorist attack, the more they will be affected. This conditioning mechanism can be related to mortality salience theory (Pyszczynski, Solomon, & Greenberg, 2003). According to this theory, experiencing an attack can heighten one's perceived mortality, increase fear, and thus intensify strategies to buffer against death-related concerns. When this occurs, people tend to hold onto what is familiar, strengthen their relationship with entities they identify with and distance themselves from perceived out-groups, including immigrants (Das et al., 2009; Hitlan et al., 2007; Kalkan et al., 2009; Merolla & Zechmeister, 2009). This process is more likely to occur in the vicinity of an attack rather than far away (Cohu et al., 2016).

The first step of this process is thus increased stress and fear (Canetti, Hall, Rapaport, & Wayne, 2013; McCann, Sakheim, & Abrahamson, 1988). This is driven by a sensation of imminent danger and threat (Ditton, Farrall, Bannister, Gilchrist, & Pease, 1999; Giner-Sorolla & Maitner, 2013; Lazarus, 1991). These emotional reactions are related to space: several studies have found that distance to the attack is negatively associated with threat perception, stress and emotional response (Conejero & Etxebarria, 2007; Fischhoff, Gonzalez, Small, & Lerner, 2003; Schuster et al., 2001; Sprang, 1999). These findings are similar to studies from countries experiencing chronic violence, where geographic proximity is a key determinant for opinion and voting behavior (Berrebi & Klor, 2008; Deglow, 2018; Hirsch-Hoefler, Canetti, Rapaport, & Hobfoll, 2016; Kibris, 2011). Proximity can mean different things in this literature. Previous

studies have compared direct victims of terrorism to non-victims (Canetti, Elad-Strenger, Lavi, Guy, & Bar-Tal, 2015; Hirsch-Hoefler et al., 2016), emotional proximity (being part of a victimized family or knowing somebody who was victimized), personal witnessing and physical distance to attack (Bonanno, Galea, Bucciarelli, & Vlahov, 2007; Galea et al., 2002; Huddy & Feldman, 2011). In this study, we focus on physical distance as general indicator for these diverse types of proximity to attack.

The second step in our theorizing connects fear and mortality salience to negative attitudes toward migrants. The specific effects of mortality salience on political attitudes are debated (Burke et al., 2013; Taber & Young, 2013). Some evidence points to what scholars have called “worldview defense”, whereby people hold more strongly to whatever they believed before the attack – liberals becoming more strongly liberal and conservatives more strongly conservative (Kosloff, Greenberg, Weise, & Solomon, 2010; Pyszczynski et al., 2003), and some evidence points to a “conservative shift”, whereby people generally, even liberals, tend to move towards conservatism and in-group favorability in the face of uncertainty (Bonanno & Jost, 2006; Echebarria-Echabe & Fernández-Guede, 2006; Jost, Glaser, Kruglanski, & Sulloway, 2003; Landau et al., 2004; Schlenger et al., 2002). More specifically, mortality salience and the resultant fear has been shown to negatively influence attitudes toward dissimilar out-groups like immigrants (Das et al., 2009; Greenberg et al., 1990).

In sum, closeness to a terrorist attack can raise mortality salience and fear, and in turn, fear can heighten negative attitudes towards members of out-groups. In line with this reasoning, we thus propose our first hypothesis.

Proximity to attack hypothesis: *In the wake of a terrorist attack, migration attitudes become more negative in areas closer to the attack.*

In addition to proximity to attack, we propose an alternative hypothesis that is not related to the spatial origin of the terrorist message (the sender), but to the spatial context of the receivers of the message. The news of a terror attack may be received differently and thus generate different reactions depending on the local experiences and pre-conceived notions of the respective audience. For the specific consequences on migration attitudes, the migration context is important to consider here (Karreth, Singh, & Stojek, 2015), as the geographic space between people of different social groups – including migrants and natives – can affect their political attitudes (Enos, 2017). By migration context, we mean the presence of migrants in a given location. A society with little immigrants represents a homogenous migration context,

whereas a society that has received many immigrants represents a heterogeneous migration context.

Previous research has shown a relationship between citizens' views of migration and the migration context they live in. Contrasting theories have been used to explain this relationship. Research based on contact theory (Allport, 1979) argues that people living in diverse societies have more opportunity for inter-group contact with migrants, including Muslims, and are less negatively prejudiced towards them (Green, Fasel, & Sarasin, 2010; Savelkoul, Scheepers, Tolsma, & Hagendoorn, 2011). On the contrary, research based on group threat theory (Blumer, 1958) argues that feelings of threat and related prejudice towards migrants increase along with the size of the migrant population (Quillian, 1995). However, recent research has shown mixed results for both contact (Paluck, Green, & Green, 2018; Scacco & Warren, 2018) and group threat theory (DeWaard, 2015). Mere exposure to refugees and migrants, without a favorable context for positive contact, can in fact raise more negative attitudes (Enos, 2014; Hangartner, Dinas, Marbach, Matakos, & Xefteris, 2018). And the stability of foreign-born communities increases favorability towards them, even if they are of a large size (DeWaard, 2015). Also, studies have shown that out-group size can both increase the opportunity for positive contact and a feeling of threat (Savelkoul et al., 2011).

In contrast to the mentioned studies, we are not interested here in explaining the general variation in migration attitudes, but in examining how migration context conditions the effects of terrorism on migration attitudes. For this purpose, Enos provides a key insight by arguing that the experience of "others", in our case migrants, in the same geographical space shapes the natives' attitudes (Enos, 2017). Members of different social groups living side by side in heterogeneous societies have often relatively little direct contact with each other, but they share common institutions and experiences, like in public transport and supermarkets, which helps them recognize their similarity. This process does not occur for people living apart from each other in homogenous societies. The social geography of a society, in our case the migration context, thus plays an important role in shaping people's views of others.

This process is relevant for our study as it may influence how people revise their views on migration in the wake of a terrorist attack. Migration has been securitized during the recent wave of terrorism and discursively linked to the threat of terrorist attacks (Huysmans, 2006; Rudolph, 2003; Tirman, 2004). In most Western countries, the media and politicians have presented migrants and associated groups like asylum seekers, refugees or Muslims as a threat to security and local culture, including in the Netherlands (Roggeband & Vliegthart, 2007), Germany (Bauder, 2008), Switzerland (Feddersen, 2015), Australia (Mckay, Thomas, &

Warwick Blood, 2011), and the US (Rudolph, 2003). Despite the lack of objective evidence linking migration to terrorism (Bove & Böhmelt, 2016) and the fact that violent extremists are rarely new immigrants (Sageman, 2011), the Polish president Andrzej Duda stated in 2017 that “there is no doubt that the growing wave of terrorism is linked to migration” and that “migrants pose a security threat” (Radio Poland, 2017). While perceived threats can thus be based on false beliefs driven by public discourse, they have real consequences for the public’s evaluations of migrants (Lippmann, 2017; McCombs, 2018). The perception of threat is a key cause for negative evaluations of out-groups (Hewstone, Rubin, & Willis, 2002; Riek, Mania, & Gaertner, 2006; Stephan & Stephan, 2000), and in particular for migrants and refugees (Canetti et al., 2016; Cowling, Anderson, & Ferguson, 2019; Schweitzer, Perkoulidis, Krome, Ludlow, & Ryan, 2005). In the language of integrated threat theory, migrants are presented as a “realistic threat” to the broader audience’s physical well-being and also a “symbolic threat” to a country’s customs and culture (Stephan & Stephan, 2000).²

Connecting the insights from Enos’ political geography with integrated threat theory, we argue that in more homogenous societies, this threat representation may find more fertile soil in the moment of terrorist attacks. This is because residents of more homogenous societies are less knowledgeable about migrants, as they tend to share less everyday interactions with actual migrants. “When in-group members know very little about the out-group, they are likely to perceive the out-group as threatening. They will think that the other group is dissimilar to them.” (Stephan & Stephan, 2000, p. 38) More general communication theory makes the same prediction: where people have less direct experience, they rely more heavily on the news media and available public discourse (Zucker, 1978). This was exactly the case in Spain where people in areas with little immigration were more heavily influenced by negative news-reporting about migration (Schlueter & Davidov, 2013).

The increased salience of the migration terrorism nexus in the aftermath of an attack should thus produce a more negative effect precisely in those contexts where people have little direct experience with migrants and little knowledge about them. At the same time, discourses connecting migration and terrorism should be less influential in contexts where citizens are used to sharing the same space with migrants on a daily basis. While such discourses may still have contributed to shape their views over time, their migration attitudes may be more fixed given a track record of interactions and settling of opinions (Boydston, Feezell, & Glazier, 2018). The very reference object of the concept of migration may differ between people in homogenous

² Symbolic threats and stereotypes may also be important drivers of migration attitudes (Velasco González, Verkuyten, Weesie, & Poppe, 2008), but are less clearly related to a terrorist event.

and heterogeneous societies. As a result, attitudes on migration may be more in flux and single events can thus exert a larger influence in homogenous than in heterogeneous migration contexts.

In addition to the proximity to attack hypothesis, which suggests that attitudes toward migration change as a result of feelings of imminent danger and fear related to the closeness to an attack, changes in migration attitudes may thus also occur as a result of a specific migration context. In line with this reasoning, we propose a second hypothesis.

Migration context hypothesis: *In the wake of a terrorist attack, migration attitudes become more negative in areas with a homogenous migration context.*

Research strategy

For the analysis of these hypotheses, we focus on the case of the Bataclan attack in Paris. In the evening of November 13, 2015, three groups of three perpetrators each, killed 130 people and injured another 413 people at the Saint-Denis football stadium, a series of restaurants and the Bataclan concert hall. Seven of the nine perpetrators died during the attacks while the other two were killed in a police raid five days after. Due to its large size and its importance for the European public, the Bataclan attack provides a most likely scenario for wide-ranging consequences on political attitudes across space. Also, given that it was one of the early attacks during the most recent wave of Islamist terrorism in Europe, which started with the emergence of ISIS and the Charlie Hebdo attack in Paris, it was particularly shocking for a wider audience all across Europe.

The study of the consequences of terrorist attacks across space would ideally draw on a large amount of cases in order to control for idiosyncratic aspects of each case. However, with still relatively few cases of attacks in the Western world and too many contextual differences between each attack type and location, the systematic examination of hypotheses remains challenging. In this study, we are able to exploit the fact that the Eurobarometer survey number 84.3 involved countries across Europe, started shortly before the Bataclan terror attack in Paris, and ended a few days after. It was conducted from November 7 to November 16, 2015, in all European Union member countries. Each individual country sample included between 1000 and 1500 respondents (for further details, see the Appendix). The survey period was roughly the same for all countries.

With this quasi-experimental design, we can compare citizens interviewed after the terrorist attack with those interviewed before, using short-range time windows before and after

the attack to minimize the possibility of alternative trends affecting potential changes. However, a terrorist attack in this set-up has to be understood as a bundle of diverse occurrences: the attack itself, the response of the government and media, and likely other context-dependent dynamics. In that sense, even though we study only one terrorist attack, the treatment is not homogenous across Europe as governments and media in different countries may have reacted differently. Political elites and the media in Europe frame acts of terrorist violence against civilian targets and are capable of influencing emotional reactions and threat perceptions (Croft & Moore, 2010; Entman, 2004). We recognize the existence and influence of different mediating factors. Yet, this research rests on the premise that public opinion constitutes a crucial measure of success for terrorist groups and targeted governments alike and acts as an important driver of political representation and public policies (Burstein, 2003), regardless of which mediating factors are at play.

We analyze the survey data using the following empirical model:

$$Y_{ir} = \alpha + \beta_1 D_{ir} + \beta_2 X_r + \beta_3 D_{ir} \times X_r + Z'_{ir} \delta + \mu_c + \varepsilon_{ir}$$

where Y_{ir} is the outcome variable, migration attitudes for individual i in region r at the time of the survey (see also Geys & Qari, 2017a). For our dependent variables, we use the degree of agreement with the statement, *countries should help refugees*, and the statement, *immigrants contribute to society* (Ciftci, 2012; Hitlan et al., 2007). Both are originally measured on a 1 to 4 Likert scale, but rescaled to a 0 to 1 scale for ease of interpretation. We take these two survey items as indicators of favorability towards migration. We call changes in the direction of less favorability in terms of the migrants' contribution to society and whether countries should help refugees as more negative, without implying a normative stance. As additional outcome variable in some of the models, we use *Terrorism as priority*, selected by a respondent as one of two policy priority issues. This variable is not directly related to our theorizing, but can be seen as a treatment check as it directly identifies the saliency of the terrorist threat. All dependent variables are scaled between 0 and 1 to facilitate interpretation.

Our models include a terrorism variable as the key independent variable of interest or “treatment”, D_{ir} , capturing whether survey respondents were interviewed before or after the attack. Therefore, D_{ir} is equal to 1 for individuals interviewed after the Bataclan attack, and 0 otherwise. To corroborate the assumption that treatment assignment occurs as-if random and to minimize as much as possible the probability that other events drive the estimated effects, we use very narrow bandwidths. In fact, our sample size is sufficiently large, and the terrorism

variable allows to compare individuals interviewed the day after the attack, 14 November 2015 (=1) with individuals interviewed the day of the attack, 13 November 2015, before 21:00 (=0). We thus end up with a sample of 7224 individuals. This strategy allows us to account for potential temporal trends and alternative events and get as close of an estimate as possible to a causal effect. Also, it mitigates potential biases associated with the survey roll-out. For example, early responders of the survey, who answer the first call for participation, may be different from late responders, who were called previously (Muñoz, Falcó-Gimeno, & Hernández, 2018). In our set-up, we are only comparing individuals who were surveyed in the middle of the survey period. Unless otherwise specified, we use the full sample of European countries throughout. In the Appendix, section A.3, we provide balance tables to check for systematic differences across groups interviewed before and after the terrorist attack. We find that there are virtually no differences in average observable characteristics. In fact, the covariate balance across groups, indicated by the p values across t tests on the equality of means, acts as evidence that differences in attitudes are more likely to be attributed to the effect of the terrorist attack rather than preexisting differences.

Our main analysis focuses on proximity to attack and migration context. To test our hypotheses, we include X_r , a local-level moderator or conditioning variable, which is either the distance to Paris, where the attack took place (proximity), the number of refugees or the number of migrants (migration context, at either the region or country level). We expect X_r to affect the strength of the treatment effect. To assess proximity to attack, we use a standard measure of geographic distance (measured in kilometers) between Paris and the centroid of the region where the respondent is based. For most countries, the Eurobarometer provides regional subdivisions at the NUTS3 level, but for some countries information are at either the NUTS1 level (e.g., Italy) or the NUTS2 level (e.g., Finland). We use the lowest level of aggregation. As robustness check, we also analyze cultural proximity instead of geographic distance (see Appendix A.5).

The second hypothesis suggests that the effect of a terrorist attack hinges on a respondent's local migration context. To assess it, we use different specifications. We include data on the number of refugees per thousand residents shortly before the attack in 2015 and the size of foreign-born population, also transformed in per thousand inhabitants to facilitate the comparison.³ Whereas migration stock speaks to stable migration context over time, incoming

³ Refugees are people who are recognized as refugees under the 1951 Convention Relating to the Status of Refugees or its 1967 Protocol, the 1969 Organization of African Unity Convention Governing the Specific Aspects of Refugee Problems in Africa, people recognized as refugees in accordance with the UNHCR statute, people granted refugee-like humanitarian status, and people provided temporary protection. International migrants are defined as the number of people born in a country other than that in which they live (see World Bank, 2016).

refugees taps into recent changes in migration context (DeWaard, 2015). We take these data for each European country from the World Bank collection of development indicators (World Bank, 2016). We argue that the national migration context is relevant for this hypothesis, as the debate framing migrants as potentially linked to terrorism occurs at the national level and affects citizens across the country. However, in the Appendix A.6, we also investigate this hypothesis using data on net migration at the regional level, given that local experiences with migrants may mitigate the effects of terrorism on migration attitudes.⁴

In addition, we control for Z'_{ir} , a vector of individual level control variables that may mitigate – education level (Ciftci, 2012) – or exacerbate – TV consumption (Cho et al., 2003) and employment status (Strabac & Listhaug, 2008) – the effects of the terror attack. We also include age, gender and retirement status as additional demographic controls potentially correlated with migration attitudes (Cowling et al., 2019) to account for minor imbalances. Original survey items for these variables are in section A.2 of the Appendix. Overall, the control variables have the predicted positive or negative associations with the outcome variables. They are largely consistent with previous scholarship on attitudes towards out-groups (Karreth et al., 2015), with unemployed and retired people being more negative towards immigration and refugees. Given space limitations, the full results tables are reported in Appendix A.4.

Finally, α and ε_{ir} represent the constant and error terms, respectively, and μ_c is the country fixed effect. We use clustered standard errors on NUTS regions (subnational regions), as errors for individuals belonging to the same location may be correlated. In A.4, we check the sensitivity of our main results to changes in the type of regression and model specification. We also relegate to the Appendix all the regression tables and show instead figures for the main variables of interest.

Analysis

For the purpose of illustration and in preparation of the analysis of our two hypotheses, we start with Figure 1 showing coefficients for effects of terrorism in Europe as a whole. These plots show point estimates and 95% confidence intervals for the relationship between the terrorism variable and *Terrorism as priority*, selected by a respondent as one of two policy priority issues. This provides us with an overall estimate of the effectiveness of the terrorist attack across Europe and also serves as a treatment check. Estimates and their intervals are

⁴ Unfortunately, we are unable to directly capture the locally varying intensity of public discourse linking migration and terrorism in the wake of the attack. However, we assume that the availability of such a discourse is common across Europe and capture it with our country fixed effects.

drawn from a linear regression using all control variables, clustered standard errors for subnational regions and country fixed-effects.

As one would expect, terrorism is a higher priority after the attack, and point estimates show that this variable increases by more than 0.05 points, on a scale between 0 and 1. With respect to out-group oriented attitudes about immigration, we can see that terrorism does affect both the *Help Refugees* and the *Immigrants Contribute* variables (see Figure 1). For Europe as a whole, there is a detectable negative effect of the terrorist attack on migration attitudes, and the coefficients are not only statistically different from 0 at conventional levels, but they are also of a similar order of magnitude as the *Terrorism as priority* variable. Yet, above we argued that there may be important differences across space, due to either proximity to attack or migration context. We thus now turn to our two main hypotheses.

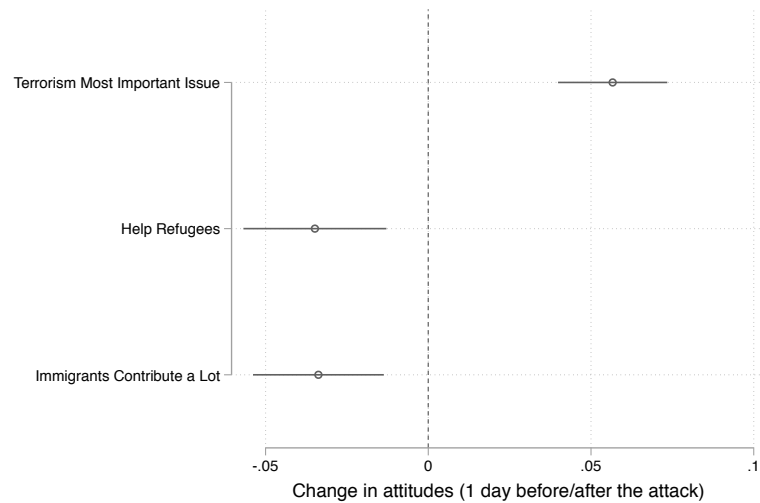


Figure 1: Effect of Bataclan attack on attitudes across Europe

Notes: Coefficient plot comparing individuals interviewed the day after the attack (=1) with individuals interviewed the day of the attack (= 0). Source: Eurobarometer 84.3. Control variables include age, education, gender, unemployment status, retired status, television consumption and country dummies. Standard errors clustered on regions. Horizontal lines represent 95 percent confidence intervals.

Proximity to attack

Concerning our first hypothesis, we show the marginal effects plot of the consequences of terrorism for migration attitudes, dependent on a respondent's regional distance from Paris (Figure 2).⁵

⁵ The corresponding regression tables are reported in the Appendix, section A.5.

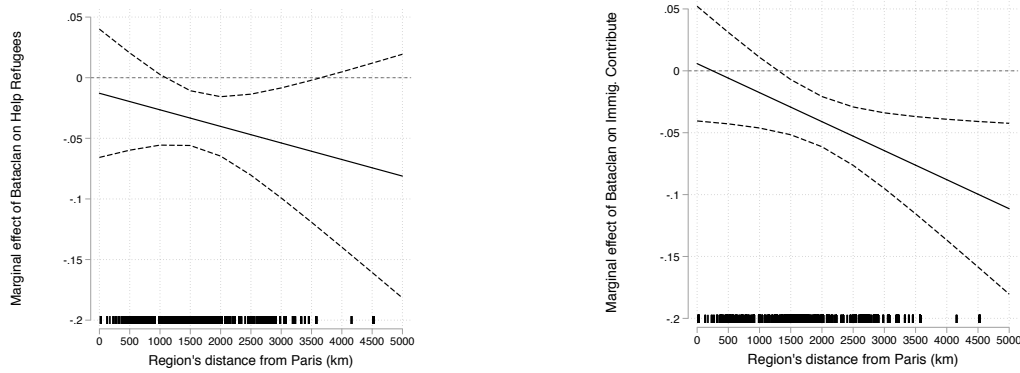


Figure 2. The effect of Bataclan on attitudes towards immigration, depending on distance from Paris.

Notes: Graph shows effect of Bataclan attack on “Help Refugees” (left panel) and “Immigrants contribute a lot” (right panel), conditional on distance from Paris, while holding all other covariates constant at their means. Individuals interviewed the day after the attack (=1) are compared with individuals interviewed the day of the attack (= 0). Control variables include age, education, gender, unemployment status, retired status, television consumption and country dummies. Standard errors clustered on regions. Dashed lines signify 95 percent confidence intervals. Rug plot at horizontal axis illustrates distribution of distance from Paris (in kilometers).

Two results emerge. First, distance did not matter for proximate countries, and no significant effect is discernible in its neighboring regions such as those in Belgium and Germany, and for areas whose distance from Paris is below roughly 1200 kilometers. Second, the line displays a clear negative slope for both migration attitudes. Distance from Paris thus increases the magnitude of the response to the terrorist attack and the degree of negative attitudes towards immigrants. Yet this is only significant for relatively distant regions. These results speak against the proximity to attack hypothesis. However, we do not believe that increasing distance has per se a negative effect on migration attitudes. Rather, it is possible that countries farther away from Paris, including countries in Eastern and South-Eastern Europe, share some social and economic characteristics that are systematically related to distance from Paris.

Before turning to this issue, one might argue that proximity to attack only matters for close-range distances, e.g. whether someone is located in the area where the attack happened or not, rather than whether someone lives 1500 or 3000 kilometers away. Therefore, we replicated the same analysis for distances from Paris only within France. Results are shown in section A.5 of the Appendix. The line is relatively flat, with a small positive slope. We thus find no evidence suggesting that a respondent’s distance from Paris, within the French borders, affects migration attitudes. In Appendix A.5, we also ran the same analysis with an indicator for cultural distance, based on the World Values Survey (Spolaore & Wacziarg, 2015). Results are very similar to the ones using physical distance.

Overall, we can conclude that in contrast to earlier research, our results suggest that proximity to attack is not related to attitudinal changes about migrants for the case of the Bataclan attack, at least not in the expected direction.

Migration context

Turning to migration context, our second hypothesis, we estimate the effects of the Bataclan attack on attitudes towards immigration depending on the number of refugees (Figure 3) and foreign-born residents (Figure 4) per 1000 inhabitants in mid-2015 (just before the attack).⁶

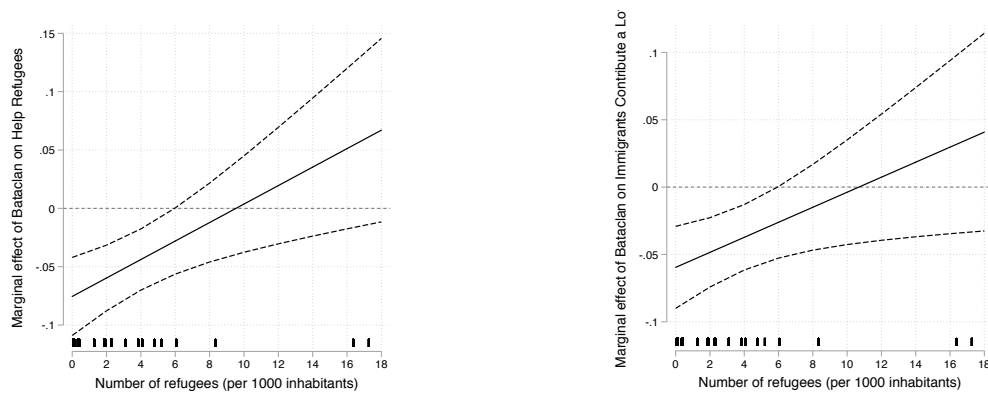


Figure 3. The effect of Bataclan on attitudes towards immigration, depending on number of refugees in each country.

Notes: Graph shows effect of Bataclan attack on “Help Refugees” (left panel) and “Immigrants contribute a lot” (right panel), conditional on the number of refugees per 1000 inhabitants, while holding all other covariates constant at their means. Individuals interviewed the day after the attack (=1) are compared with individuals interviewed the day of the attack (= 0). Control variables include age, education, gender, unemployment status, retired status, and television consumption. Standard errors clustered on regions. Dashed lines signify 95 percent confidence intervals. Rug plot at horizontal axis illustrates distribution of number of refugees (per 1000 inhabitants).

⁶ The corresponding regression tables are reported in section A.6 of the Appendix.

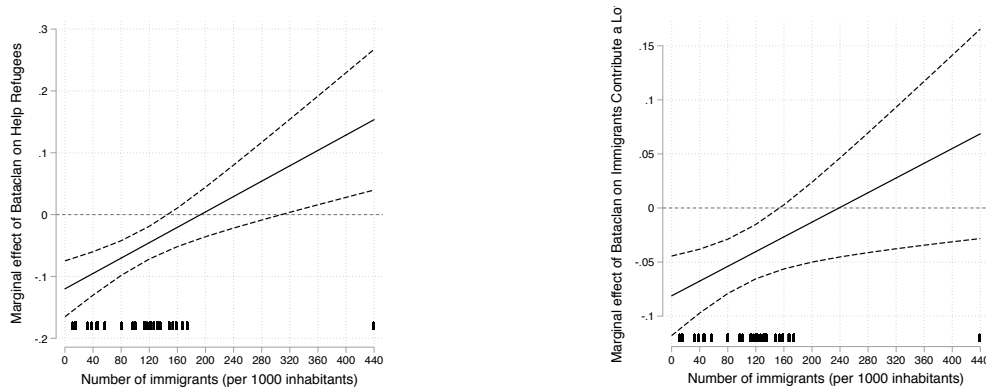


Figure 4. The effect of Bataclan on attitudes towards immigration, depending on number of immigrants in each country.

Notes: Graph shows effect of Bataclan attack on “Help Refugees” (left panel) and “Immigrants contribute a lot” (right panel), conditional on the number of immigrants per 1000 inhabitants, while holding all other covariates constant at their means. Individuals interviewed the day after the attack (=1) are compared with individuals interviewed the day of the attack (= 0). Control variables include age, education, gender, unemployment status, retired status, and television consumption. Standard errors clustered on regions. Dashed lines signify 95 percent confidence intervals. Rug plot at horizontal axis illustrates distribution of number of immigrants (per 1000 inhabitants).

We find that countries with few refugees, less than six per 1000 inhabitants, are more likely to have more negative attitudes towards refugees and immigrants alike shortly after the Bataclan attack. In fact, the marginal effect becomes smaller as the number of refugees increases and the effect of the attack becomes insignificant in countries with more than six refugees per 1000 population (see Figure 3).

To further explore this last finding, we replace the number of refugees with the number of migrants and analyze the consequences of terrorism dependent on the number of foreign-born residents per 1000 inhabitants in each country, as reported by the World Bank (see Figure 4). The resulting marginal effects plot shows a similarly positive relationship and countries with a lower number of immigrants display a more negative change in attitudes towards refugees following the Bataclan attack. Once again, the larger the population of immigrants, the smaller is the substantive effect of the terrorist attack on attitudes towards immigration. Finally, the effect of the attack disappears in countries with a relatively large share of immigrants.

The presented analysis is based on national level data, as the national debate about the migration terrorism linkage may be particularly influential. Yet, one might argue that migrants are likely to cluster in certain regions and we therefore replicate the analysis with regional level migration data in section A.6 of the Appendix. Results remain very similar with this more fine-grained information. In regions with less immigration, citizens tend to develop more negative

attitudes toward migration as a result of the attack. Overall, we thus find evidence in support of the migration context hypothesis as outlined above.

Robustness checks

We perform a number of additional analyses in the Appendix, section A.7, to probe the credibility of our quasi-experimental design and deal with some of the potential threats to causal identification, in particular those stemming from simultaneous events and unrelated time trends (see Muñoz et al., 2018).

First, our results with respect to the baseline models in Figure 1 are similar when we use an alternative time window, i.e. when we use one day after attack and the full week before the attack, 7 to 13 November 2015 (in lieu of one or three days). In fact, given the larger sample size, the coefficients are more precisely estimated and, if anything, using one day before and after the attack provides more conservative estimates (see Figure A.5).

Second, to address the possibility that pre-existing time trends, unrelated to the terrorist attack, affect the results, we estimate the effect of a placebo treatment at the left of the cut-off point, i.e. before Friday 13 November 2015 (see Figure A.6). We show that a placebo treatment does not affect the outcomes of interest.

Third, to rule out the possibility that the observed results are actually driven by simultaneous events, we rely on falsification tests and explore the effect of the timing of the Bataclan event on variables that, theoretically, should not be affected by it (see Figure A.7). We do not find significant effects on these variables, which increases the confidence in our results.

Conclusions

This article provides a new perspective to the study of consequences of terrorism on migration attitudes. With notable exceptions, earlier research has mainly focused on the effects of terrorist attacks in targeted countries. We leverage data from the Eurobarometer survey to explore consequences across Europe and examine how space conditions the effects of terrorism.

Interestingly, the consequences of terrorism near and far are markedly distinct in the case of the Bataclan attack, perhaps the most emblematic case of recent terrorism in Europe. This variation across space allows us to examine two hypotheses with regard to migration attitudes. First, we argued that the consequences of terrorism may depend on proximity to attack. People who live closer to the attack should be more negatively affected, as previous research indicates that attitudes towards out-groups change as a result of feelings of imminent danger and fear. Second, we argued that the consequences of terrorism may depend on

migration context. According to this hypothesis, people who live in homogenous societies may be more receptive to common political discourses linking migration to terrorism as they have less first-hand experience with migrants in their daily lives.

Three findings are particularly noteworthy. First, we find no evidence in favor of a proximity to attack hypothesis related to a feeling of imminent danger and fear, neither across Europe nor within France. This is in contrast to existing literature that often identified a conditioning effect of spatial proximity on effects of terrorism. Second, distant countries surprisingly displayed changes in the opposite direction of what the spatial proximity hypothesis suggests. More distant countries revealed more negative effects of the attack on migration attitudes. However, this is likely not due to distance per se but to local contextual characteristics of countries farther away from France. Third, and perhaps most important, we find evidence in favor of a migration context hypothesis. Views of immigrants and refugees were most negatively affected in contexts with relatively homogenous societies. Little experience with immigration and thus less settled opinions may have made local populations more receptive to the negative framing of immigrants and refugees common in public debate, resulting in a swift opinion change with regard to this specific issue. Hence, not imminent danger and fear related to a close attack, but local migration context was decisive for changes in attitudes towards migration after the Bataclan attack.

Several important issues remain to be investigated. First, after a series of existing studies focusing on one specific attack and mainly on its effects within the targeted country, an integration of findings from separate cases may be a promising avenue of research for this field. Each attack is in a way idiosyncratic due to the moment in history when it occurs, the size of the attack, the perpetrators behind the attack, and the symbols associated with it. Also, as the consequences of terrorism depend on the framing of the terrorism threat and particular out-groups, contextual differences should be leveraged to explain the variation of consequences of terrorism across space and time. Quite clearly, the effects of terrorism on migration attitudes are less relevant in contexts where migration is not a securitized topic. However, our results may be generalizable to a Western context where migration and terrorism have been discursively linked in the public debate. In fact, similar dynamics have been previously observed in Australia (Mckay et al., 2011). But even within contexts where migration and terrorism have been linked to each other in public discourse, there may be relevant differences in media reporting and political debate. These differences may make the broader audience more or less prone to attitude change in the wake of terrorist attacks. Analyzing the effects of

terrorism depending on public and media discourse connecting migrants to terrorism, and the related rise of nationalism across Europe, may thus be a promising avenue for future research.

Second, in this article, we only look at short-term consequences of the terrorist attack. Hence, we cannot say whether these effects will persist over time or go back to pre-attack levels rather quickly (Mancosu et al., 2018). A likely scenario is that attitudes level off after a series of attacks and individuals become less susceptible to additional changes (Markoulis & Katsikides, 2018; Nussio, 2018). Hence, a series of attacks, as the one experienced recently in Europe, is likely accompanied by increasingly fixed attitudes with less susceptibility for change after each attack. However, in the long term, attitudes may well have been drastically reshaped by a wave of terrorism (see also Merolla & Zechmeister, 2009; Vergani, 2018). This long-term trend is much harder to empirically identify, given the many parallel events and processes that simultaneously influence political attitudes.

Third, our results with regard to the migration context hypothesis may be partially explained by previous interactions between natives and migrants in day to day activities, like taking a bus or shopping (see Enos, 2017). Such interactions may counteract stigmatizing discourses connecting migrants, and particularly Muslims, to terrorism. The broader context in which such interactions occur cannot be easily influenced. Also, rapid changes in the mix of the social composition of a society may in fact create a heightened sensation of threat and thus more willingness to stigmatize foreigners (DeWaard, 2015). However, more balanced media reporting (Roggeband & Vliegthart, 2007) and government initiatives stimulating positive contact between different social groups could inhibit the spread of prejudice toward migrants, and make it harder for politicians to receive approval for statements presenting migration as a threat. Relatedly, the analysis of specific migration policies used in different contexts may be a worthwhile avenue of future research. Local policies on integration or religion for example may mitigate or exacerbate the effects of terrorism on migration attitudes (Helbling & Traunmüller, 2016). Studying such localized policy interventions may provide further insight into the understanding of what conditions the effects of terrorist attacks.

Over the recent years, the increasing frequency of terrorist violence has meant that the question of how to most effectively respond to terrorism has returned as a central concern for policymakers in Europe. A better understanding of whether the very consequences of terrorist attacks on political attitudes go beyond national borders and how is an important step in this direction.

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The consequences of terrorism on migration attitudes–

Online appendix

In this appendix, we provide additional information on the Standard Eurobarometer series. We have also performed additional tests to assess the robustness of our findings. All these additional checks can be replicated with the data and model instructions.

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A.1. Survey details

The Standard Eurobarometer series, established in 1974, is a cross-national and cross-temporal survey program. Interviews are conducted in both the spring and in autumn, every year, based on new samples using a “repeated cross-section” design. The survey consists of both standard modules and special topic modules. The standard modules can be found in every survey and address attitudes towards European unification, institutions and policies, measurements for general socio-political orientations, as well as respondent and household demographics. The special topic modules, integrated into the standard survey, change regularly, and address topics such as agriculture, education, natural environment and resources, public health, public safety and crime, and science and technology¹

Eurobarometer 84.3

¹For more information please visit: http://ec.europa.eu/echo/eurobarometer_en The specific survey used in this report is titled Eurobarometer 84.3.

Principal Investigator: European Commission, Brussels

Authorizing Entity: Directorate General Communication, Strategy, Corporate Communication

Actions and Eurobarometer

Sampling Procedure: Probability Sample, Multistage Sample

Mode of Data Collection: Face-to-face interviews

Collection Dates: November 7-17, 2015

Countries Involved: The 28 European Union (EU) Member States, five candidate countries (the Former Yugoslav Republic of Macedonia, Turkey, Montenegro, Serbia and Albania) and the Turkish Cypriot Community in the part of the country that is not controlled by the government of the Republic of Cyprus.

Categories in the Survey:

- International Institutions, Relations, Conditions
- Political Attitudes and Behavior
- Economic Policy, National Economic Situation
- Society, Culture
- Political Issues
- Communication, Public Opinion, Media

Citation: European Commission, Brussels (2017): Eurobarometer 84.3 (2015). TNS opinion, Brussels [producer]. GESIS Data Archive, Cologne. ZA6643 Data file Version 3.1.0, [doi:10.4232/1.12799](https://doi.org/10.4232/1.12799)

A.2. Original Survey items

Outcome Variables

Variable: “Terrorism Most Important Issue”

Survey question: What do you think are the two most important issues facing your country at the moment?

Response options:

1. Crime
2. Economic situation

3. Rising prices/inflation/cost of living
4. Taxation
5. Unemployment
6. Terrorism
7. Housing
8. Government debt
9. Immigration
10. Health and social security
11. The education system
12. Pensions
13. The environment, climate and energy issues
14. Other
15. None
16. Don't know

Variable: “Help refugees” and “Immigrants contribute a lot”

Survey question: To what extent do you agree or disagree with each of the following statements?

My country should help refugees. Immigrants contribute a lot to my country.

Response options:

1. Totally agree
2. Tend to agree
3. Tend to disagree
4. Totally disagree
5. Don't know

Control Variables

Variable: “female”

Survey question: Gender

Response options:

1. Man
2. Woman

Variable: “age”

Survey question: How old are you? Number in years

Response options: blank box

Variable: “education”

Survey question: How old were you when you stopped full-time education? Number in years

Other response options:

1. Still studying
2. No education
3. Don't know
4. Refusal
5. Blank box

Variable: “unemployed” and “retired”

Survey question: What is your current occupation?

Response options:

1. Responsible for ordinary shopping and looking after the home, or without any current occupation, not working
2. Student
3. Unemployed or temporarily not working
4. Retired or unable to work through illness
5. Farmer
6. Fisherman
7. Professional (lawyer, medical practitioner, accountant, architect, etc.)
8. Owner of a shop, craftsmen, other self-employed person
9. Business proprietors, owner (full or partner) of a company
10. Employed professional (employed doctor, lawyer, accountant, architect)

11. General management, director or top management (managing directors, director general, other director)
12. Middle management, other management (department head, junior manager, teacher, technician)
13. Employed position, working mainly at a desk
14. Employed position, not at a desk but travelling (salesmen, driver, etc.)
15. Employed position, not at a desk, but in a service job (hospital, restaurant, police, fireman, etc.)
16. Supervisor
17. Skilled manual worker
18. Other (unskilled) manual worker, servant
19. Never did any paid work

Variable: “television”

Survey question: Where do you get most of your news on national political matters? Firstly?
Secondly?

Response options:

1. Television
2. The written press
3. The radio
4. Websites
5. Online social networks
6. Other
7. You do not look for news on national political matters
8. Don't know

A.3. Covariate balance

Table A.1 shows descriptive statistics for the individual-level control variables included in our analysis; namely, gender, age, level of education, unemployment status, retired status, and television consumption. We use the full sample of respondents. For each variable, we report the mean for those interviewed before the attack (control group) and those interviewed after the attack (treatment group) and compute the difference in means across the two groups. We also perform t-tests for differences in means and report the corresponding p-values. The t-test results show a strong balance across the two groups for all the pre-treatment characteristics and there are no covariates that shows a statistically significant difference across treatment and control units.

Table A.1. Covariate balance across control and treated units

| | Pre-attack mean | Post-attack mean | Difference in means | P Value |
|-----------------|-----------------|------------------|---------------------|---------|
| Female (1/2) | 1.535 | 1.541 | -0.006 | 0.593 |
| Age (years) | 49.532 | 49.055 | 0.477 | 0.264 |
| Education (1-5) | 3.285 | 3.277 | 0.008 | 0.704 |
| Unemployed | 0.090 | 0.089 | 0.001 | 0.890 |
| Retired | 0.294 | 0.284 | 0.010 | 0.355 |
| Television | 0.239 | 0.234 | 0.005 | 0.644 |
| Observations | 3794 | 3430 | 7224 | |

Note: Means of control variables and T tests on the equality of means. Individuals interviewed the day after the attack (=1) with individuals interviewed the day of the attack (= 0).

A.4. The effect of Bataclan attack on attitudes across Europe: additional results

Tables A.2 -A.4 show the regression tables corresponding to Figure 1. In Table A.2 the dependent variable is *Terrorism as priority*, selected by a respondent as one of two policy priority issues, whereas in Tables A.3 and A.4 the dependent variable is the degree of agreement with the statement that countries should *Help Refugees* and with the statement that *Immigrants Contribute* to society, respectively. Throughout the article, we use simple OLS models with country-fixed effects and standard errors clustered on NUTS regions. As we mentioned in the article, the covariates have the predicted positive or negative associations with the outcome variables. Yet, before we explore whether the impact of the Bataclan attack on these public attitudes is conditional on contextual factors, distance and the number of refugees or immigrants, there are three issues that are worth discussing. First, as our dependent variables could be treated as a categorical and ordered variable, we include ordered probit models in the Tables (see columns (v) to (viii)). Ordered probit yield

estimates that are in line with those reported in columns (i) to (iv), but the coefficients cannot be interpreted directly. Therefore, for ease of interpretation, and as OLS can be equally used for ordinaly measured variables, when their distribution is approximately normal, we use the OLS as baseline models (see [Geys & Qari, 2017](#), [Metcalf *et al.*, 2011](#), [Mondak & Hurwitz, 2012](#), for a similar approach). Second, given the strong balance across the two groups for nearly all attributes, one should not expect major differences in our coefficients of interest when adding control variables. In fact, comparing uncontrolled results (columns (i) and (v) of Tables A.2-A.4) and results with control variables (columns (ii) and (vi) of Tables A.2-A.4), we find that results are similar when we omit individual-level covariates, that usually address the issue of selection bias in survey analysis. Yet, the precision of the estimates increases, particularly in Tables A.3 and A.4 and when we include country fixed-effects, in addition to individual covariates (models (iii) and (vii)). For this reason we use models with covariates and fixed effects as baseline. Third, we report standard errors that account for clustering of units, because of the possible presence of “common unobserved random shock at the group level that will lead to correlation between all observations within each group” ([Hansen, 2007](#), p. 671). In a recent article related to ours, [Balcells & Torrats-Espinoso \(2018\)](#) cluster standard errors by administrative divisions to account for clustered sampling design. We decide to cluster standard errors by NUTS regions given that the primary sampling units (PSU) in the Eurobarometer are selected from each of the administrative regions in every country. Yes, one the one hand, [Abadie *et al.* \(2017\)](#) recall that it is often difficult to justify clustering by some partitioning of the population, but not by others. On the other hand, in a recent survey [Cameron & Miller \(2015\)](#), p.333) claim that the “consensus is to be conservative and avoid bias and to use bigger and more aggregate clusters when possible, up to and including the point at which there is concern about having too few clusters”. Whereas the NUTS level is aggregate enough, we show that results are very similar when robust standard errors are clustered at the country level (models (iv) and (viii)) in lieu of the regional level. All the main results in the following analyses do not significantly change when we use different cluster levels or Ordered probit and these additional checks can be replicated with the data and model instructions.

Table A.2. The effect of Bataclan on Terrorism as priority

| | (i) | (ii) | (iii) | (iv) | (v) | (vi) | (vii) | (viii) |
|--------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Terrorism (1 day before/after) | 0.046*** (0.009) | 0.051*** (0.009) | 0.057*** (0.009) | 0.057*** (0.015) | 0.326*** (0.059) | 0.385*** (0.057) | 0.476*** (0.063) | 0.476*** (0.090) |
| Female (1/2) | | -0.001 (0.006) | 0.005 (0.006) | 0.005 (0.004) | | -0.010 (0.046) | 0.033 (0.050) | 0.033 (0.037) |
| Age (years) | | 0.000 (0.000) | 0.000 (0.000) | 0.000 (0.000) | | 0.002 (0.002) | 0.001 (0.002) | 0.001 (0.002) |
| Education (1-5) | | -0.004 (0.005) | -0.004 (0.005) | -0.004 (0.007) | | -0.033 (0.039) | -0.031 (0.039) | -0.031 (0.052) |
| Unemployed | | -0.027** (0.012) | -0.021* (0.011) | -0.021 (0.012) | | -0.230** (0.107) | -0.175 (0.116) | -0.175 (0.117) |
| Retired | | -0.016 (0.010) | -0.011 (0.010) | -0.011 (0.008) | | -0.115 (0.074) | -0.075 (0.082) | -0.075 (0.068) |
| Television | | -0.009 (0.008) | -0.012 (0.008) | -0.012 (0.008) | | -0.070 (0.060) | -0.121* (0.064) | -0.121* (0.068) |
| Constant | 0.054*** (0.007) | 0.055* (0.033) | 0.004 (0.028) | 0.004 (0.032) | | | | |
| Model | OLS | OLS | OLS | OLS | Probit | Probit | Probit | Probit |
| Fixed-effects | | | ✓ | ✓ | | | ✓ | ✓ |
| Cluster | NUTS | NUTS | NUTS | Country | NUTS | NUTS | NUTS | Country |
| Observations | 7158 | 5738 | 5738 | 5738 | 7158 | 5738 | 5738 | 5738 |

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.3. The effect of Bataclan on Help Refugees

| | (i) | (ii) | (iii) | (iv) | (v) | (vi) | (vii) | (viii) |
|--------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Terrorism (1 day before/after) | -0.070*** (0.015) | -0.071*** (0.015) | -0.035*** (0.011) | -0.035*** (0.012) | -0.226*** (0.049) | -0.237*** (0.048) | -0.127*** (0.043) | -0.127*** (0.044) |
| Female (1/2) | | -0.009 (0.009) | 0.011 (0.008) | 0.011 (0.008) | | -0.032 (0.030) | 0.045 (0.031) | 0.045 (0.031) |
| Age (years) | | 0.002*** (0.000) | 0.001** (0.000) | 0.001** (0.000) | | 0.006*** (0.001) | 0.003** (0.001) | 0.003** (0.002) |
| Education (1-5) | | 0.052*** (0.008) | 0.044*** (0.006) | 0.044*** (0.008) | | 0.184*** (0.028) | 0.174*** (0.024) | 0.174*** (0.033) |
| Unemployed | | -0.001 (0.020) | -0.016 (0.018) | -0.016 (0.021) | | 0.002 (0.069) | -0.054 (0.068) | -0.054 (0.083) |
| Retired | | -0.047*** (0.015) | -0.035*** (0.012) | -0.035** (0.014) | | -0.155*** (0.052) | -0.126*** (0.047) | -0.126** (0.051) |
| Television | | 0.043*** (0.013) | 0.017* (0.010) | 0.017* (0.010) | | 0.145*** (0.044) | 0.059 (0.037) | 0.059 (0.038) |
| Constant | 0.586*** (0.014) | 0.357*** (0.046) | 0.581*** (0.035) | 0.581*** (0.039) | | | | |
| Model | OLS | OLS | OLS | OLS | Probit | Probit | Probit | Probit |
| Fixed-effects | | | ✓ | ✓ | | | ✓ | ✓ |
| Cluster | NUTS | NUTS | NUTS | Country | NUTS | NUTS | NUTS | Country |
| Observations | 5785 | 5389 | 5389 | 5389 | 5785 | 5389 | 5389 | 5389 |

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.4. The effect of Bataclan on Immigrants Contribute a Lot

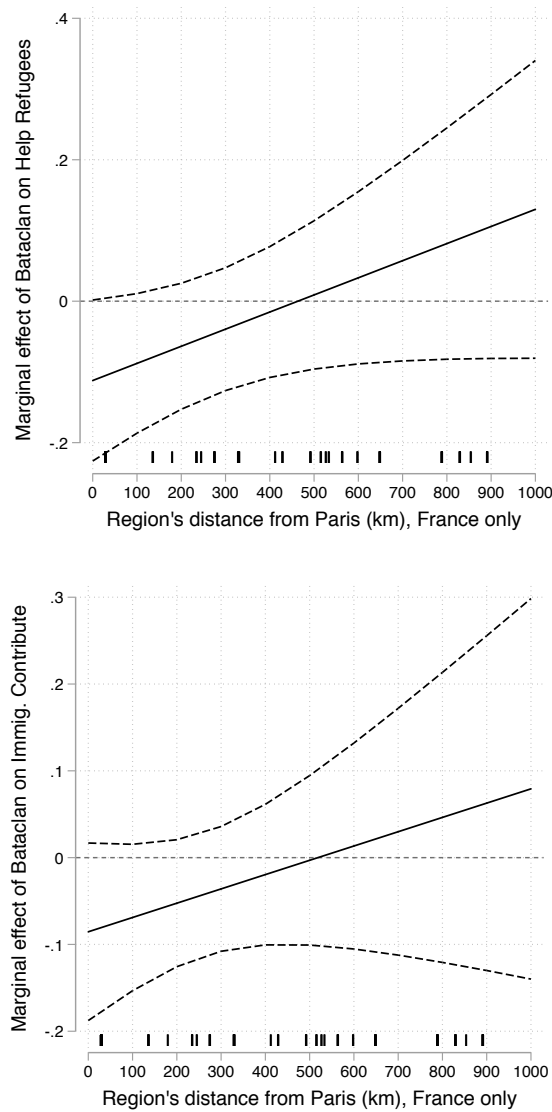
| | (i) | (ii) | (iii) | (iv) | (v) | (vi) | (vii) | (viii) |
|--------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Terrorism (1 day before/after) | -0.060*** (0.014) | -0.060*** (0.014) | -0.034*** (0.010) | -0.034*** (0.011) | -0.202*** (0.048) | -0.207*** (0.048) | -0.141*** (0.041) | -0.141*** (0.043) |
| Female (1/2) | | -0.025** (0.010) | -0.001 (0.008) | -0.001 (0.009) | | -0.085** (0.033) | -0.002 (0.031) | -0.002 (0.035) |
| Age (years) | | 0.000 (0.000) | -0.000 (0.000) | -0.000 (0.000) | | 0.001 (0.002) | -0.001 (0.001) | -0.001 (0.001) |
| Education (1-5) | | 0.045*** (0.011) | 0.046*** (0.007) | 0.046*** (0.010) | | 0.151*** (0.037) | 0.178*** (0.027) | 0.178*** (0.039) |
| Unemployed | | -0.069*** (0.019) | -0.066*** (0.017) | -0.066*** (0.017) | | -0.235*** (0.067) | -0.263*** (0.069) | -0.263*** (0.069) |
| Retired | | -0.046*** (0.013) | -0.032*** (0.010) | -0.032*** (0.011) | | -0.157*** (0.044) | -0.133*** (0.041) | -0.133*** (0.045) |
| Television | | 0.035*** (0.013) | 0.014 (0.009) | 0.014 (0.010) | | 0.116*** (0.044) | 0.053 (0.038) | 0.053 (0.040) |
| Constant | 0.412*** (0.016) | 0.306*** (0.063) | 0.435*** (0.037) | 0.435*** (0.050) | | | | |
| Model | OLS | OLS | OLS | OLS | Probit | Probit | Probit | Probit |
| Fixed-effects | | | ✓ | ✓ | | | ✓ | ✓ |
| Cluster | NUTS | NUTS | NUTS | Country | NUTS | NUTS | NUTS | Country |
| Observations | 5704 | 5307 | 5307 | 5307 | 5704 | 5307 | 5307 | 5307 |

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

A.5. The conditioning effect of distance: additional results

In Hypothesis 1, we contend that the distance to a terrorist attack can potentially moderate how terrorism affects public sentiments towards immigration. Here we present two extensions. First, we focus on distances from Paris within France.

Figure A.1. The effect of Bataclan on attitudes towards immigration, depending on distance from Paris. France sample.



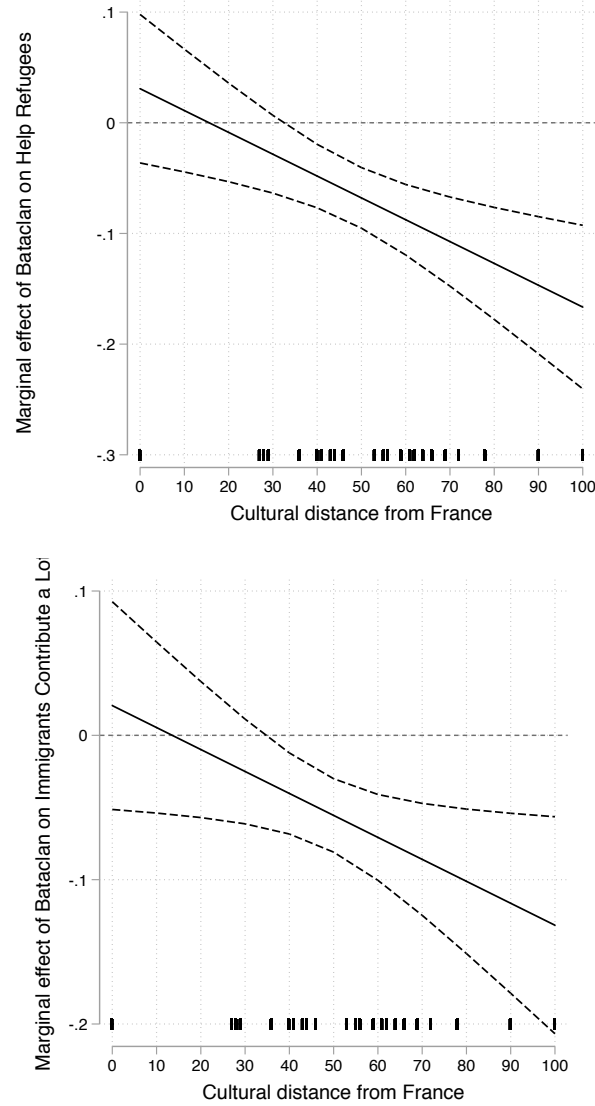
Notes: Graph shows effect of Bataclan attack on “Help Refugees” (top panel) and “Immigrants contribute a lot” (bottom panel), conditional on distance from Paris, while holding all other covariates constant at their means. Individuals interviewed the day after the attack ($=1$) are compared with individuals interviewed the day of the attack ($=0$). Control variables include age, education, gender, unemployment status, retired status, and television consumption. Standard errors clustered on regions. Dashed lines signify 95 percent confidence intervals. Rug plot at horizontal axis illustrates distribution of distance from Paris (in kilometers).

As we can see from Figure A.1, there is no evidence for a moderating effect of distance on migration attitudes within France. This is in line with results using the full sample of European countries². Second, our arguments about the moderating effect of geographic distance can be applied to other concepts of proximity. In particular, we could also expect cultural proximity to the targeted region to amplify the personal sense of vulnerability. Moreover, as feelings of trust and solidarity between countries should be more likely to be observed between culturally proximate societies (Bakaki *et al.* (2016)), then cultural distance between societies should reduce the effect of the Bataclan attack on public attitudes and opinions towards immigration. To capture cultural similarities, we use information from the World Values Surveys (WVS)³ which provides standardized data for a range of cultural issues (see Inglehart & Welzel, 2005). The WVS Integrated Questionnaire covers 7 broad categories: a) Perceptions of Life; b), Environment; c) Work; d) Family; e) Politics and Society; f) Religion and Morale; and g) National Identity. For each question, Spolaore & Wacziarg (2016) computed the Euclidian distance in the average answer shares of each option. We follow their approach and use the average distance in answers to 98 questions from the WVS integrated questionnaire (covering all waves of the survey). We rescaled the distance to range between 0 and 100 within our sample. As we can see from Figure A.2., results are very similar to those obtained in Figure 2, using the geographic distance. This is perhaps not surprising as cultural and physical distance from France are correlated. Finally, in Table A.5, we show the regression tables underpinning Figure 2 and Figure A.1 as well as those using ordered probit models for the full sample next to the OLS. In Table A.6 we show the regression tables corresponding to Figure A.2.

²We also explore whether the moderating effects of space is not linear using a quadratic term and results are overall similar. This additional result is not reported here but can be replicated with the model instructions.

³<http://www.worldvaluessurvey.org/wvs.jsp>

Figure A.2. The effect of Bataclan on attitudes towards immigration, depending on cultural distance from France.



Notes: Graph shows effect of Bataclan attack on “Help Refugees” (top panel) and “Immigrants contribute a lot” (bottom panel), conditional on cultural distance, while holding all other covariates constant at their means. Individuals interviewed the day after the attack (=1) are compared with individuals interviewed the day of the attack (= 0). Control variables include age, education, gender, unemployment status, retired status, and television consumption. Standard errors clustered on regions. Dashed lines signify 95 percent confidence intervals. Rug plot at horizontal axis illustrates distribution of cultural distance (WVS).

Table A.5. The moderating effect of distance: regression tables

| | (i) | (ii) | (iii) | (iv) | (v) | (vi) |
|--|---------------------|----------------------|---------------------|----------------------|---------------------|---------------------|
| Terrorism (1 day before/after)=1 | -0.013 (0.027) | 0.006 (0.024) | -0.050 (0.104) | 0.020 (0.091) | -0.112* (0.055) | -0.085* (0.049) |
| Distance from Paris | 0.000* (0.000) | -0.000 (0.000) | 0.000 (0.000) | -0.000 (0.000) | -0.000 (0.000) | -0.000** (0.000) |
| Terrorism (1 day before/after)=1 × Distance from Paris | -0.000 (0.000) | -0.000** (0.000) | -0.000 (0.000) | -0.000** (0.000) | 0.000* (0.000) | 0.000 (0.000) |
| Female (1/2) | 0.012 (0.008) | -0.002 (0.008) | 0.046 (0.032) | -0.008 (0.033) | -0.019 (0.042) | 0.031 (0.037) |
| Age (years) | 0.001** (0.000) | -0.000 (0.000) | 0.003* (0.001) | -0.002 (0.001) | 0.001 (0.002) | -0.001 (0.002) |
| Education (1-5) | 0.043*** (0.006) | 0.045*** (0.007) | 0.171*** (0.024) | 0.172*** (0.028) | 0.121*** (0.031) | 0.110*** (0.020) |
| Unemployed | -0.016 (0.017) | -0.062*** (0.017) | -0.053 (0.067) | -0.248*** (0.071) | -0.063 (0.068) | -0.142 (0.086) |
| Retired | -0.033** (0.013) | -0.032*** (0.010) | -0.118** (0.049) | -0.133*** (0.043) | -0.063 (0.101) | -0.022 (0.058) |
| Television | 0.016 (0.010) | 0.012 (0.010) | 0.053 (0.039) | 0.046 (0.039) | 0.028 (0.042) | 0.117** (0.050) |
| Constant | 0.392*** (0.058) | 0.188*** (0.057) | | | 0.248 (0.228) | 0.165 (0.126) |
| Model | OLS | OLS | Probit | Probit | OLS | OLS |
| Sample | EU | EU | EU | EU | France | France |
| Dependent variable | Help Ref. | Immig. contr. | Help Ref. | Immig. contr. | Help Ref. | Immig. contr. |
| Observations | 5110 | 5030 | 5110 | 5030 | 212 | 215 |

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Models with country fixed-effects. Standard errors in parentheses are clustered on regions.

Table A.6. The moderating effect of cultural distance: regression tables

| | (i) | (ii) |
|--|----------------------|----------------------|
| Terrorism (1 day before/after)=1 | 0.031 (0.034) | 0.021 (0.037) |
| Cultural distance | -0.000 (0.001) | -0.002*** (0.001) |
| Terrorism (1 day before/after)=1 × Cultural distance | -0.002*** (0.001) | -0.002** (0.001) |
| Female (1/2) | -0.005 (0.009) | -0.021** (0.010) |
| Age (years) | 0.002*** (0.000) | 0.000 (0.000) |
| Education (1-5) | 0.051*** (0.008) | 0.045*** (0.011) |
| Unemployed | -0.002 (0.021) | -0.074*** (0.019) |
| Retired | -0.044*** (0.016) | -0.046*** (0.013) |
| Television | 0.041*** (0.013) | 0.028** (0.013) |
| Dependent variable | Help Ref. | Immig. contr. |
| Observations | 5177 | 5092 |

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

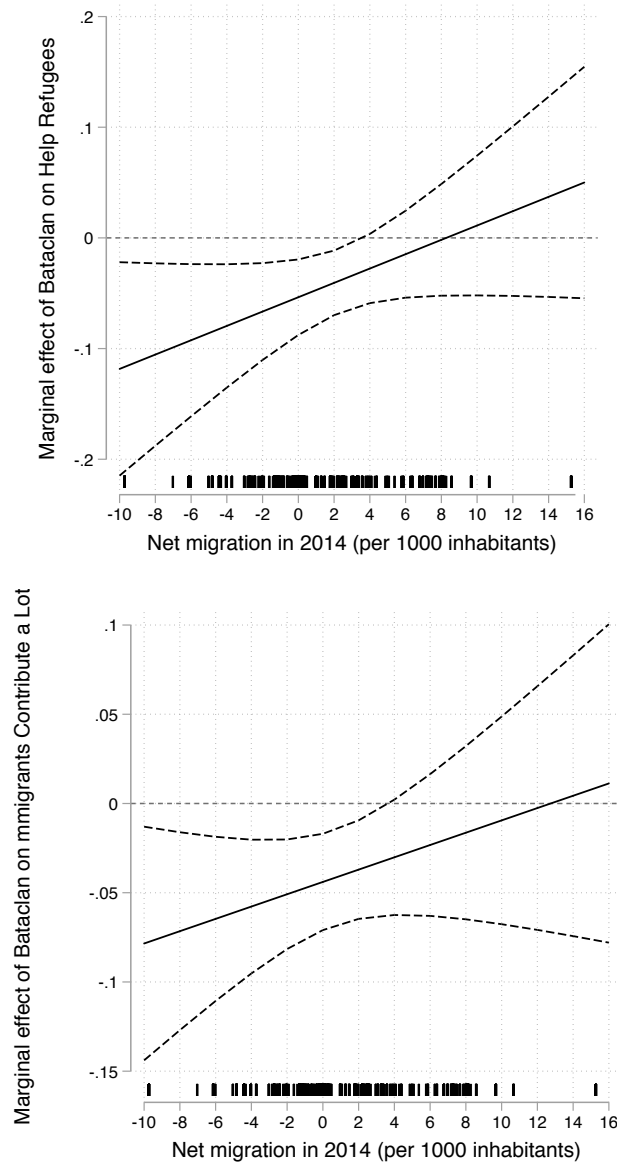
Standard errors in parentheses are clustered on regions.

A.6. The conditioning effect of migration context: additional results

One might argue that foreign-born individuals are more represented in specific regions within a country and averaging over the whole country may introduce measurement error. If this is the case, then our coefficients would be under-estimated. Yet, in Figure A.2 we replicate the analysis in Figure 4 using the crude rate of net migration per 1000 population, available from EUROSTAT at the NUTS2 level. The crude rate of net migration plus adjustment is defined as “the ratio of net migration (including statistical adjustment) during the year to the average population in that year. The value is expressed per 1000 persons. The net migration plus adjustment is calculated as the difference between the total change and the natural change of the population”⁴. To the best of our knowledge, this is the most disaggregated publicly available dataset for migration for a large number of European regions, constructed on a consistent basis, necessary for the analysis at hand. We use regional data on migration in the region in 2014 and in 2015, and our main results hold up well to these additional checks. There is however one important caveat that should be taken into account when using this data. Whereas it is often the case that migrants move to prosperous and economically developed regions, those with a low level of emigration, it is also possible that the number of immigrants and the number of emigrants counterbalance each other. As such, these results should be taken with caution. In Table A.7 we show the results underpinning Figures 3 and 4. Finally, Table A.8 is the same as Table A.7 but we use ordered probit models in lieu of OLS. As we can see, our previous results carry over.

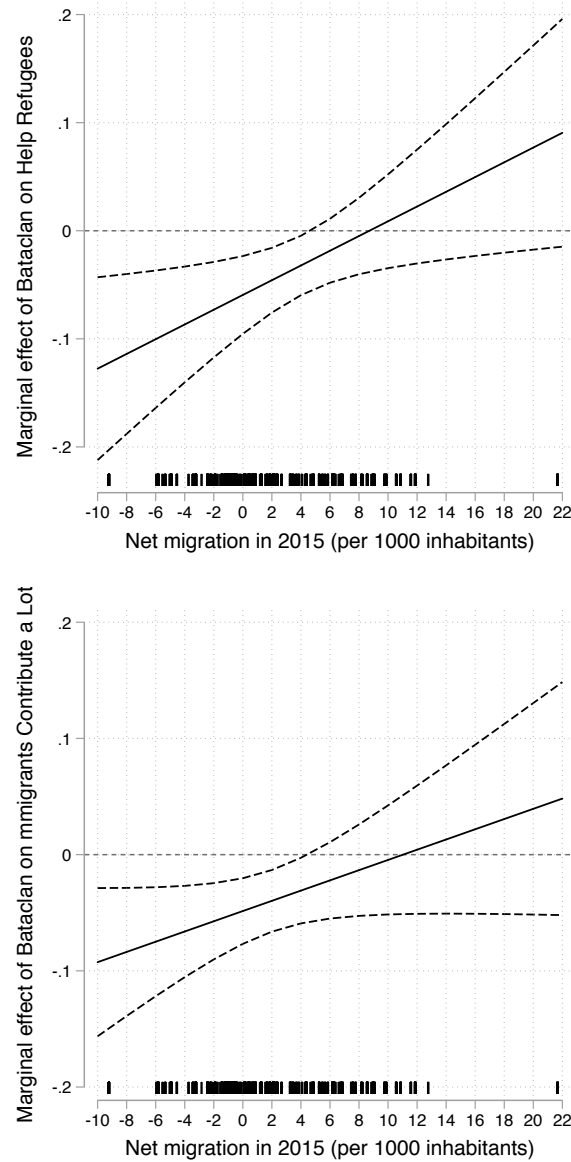
⁴see <https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tps00019&plugin=1>

Figure A.3. The effect of Bataclan on attitudes towards immigration, depending on net immigration in the region in 2014



Notes: Graph shows effect of Bataclan attack on “Help Refugees” (top panel) and “Immigrants contribute a lot” (bottom panel), conditional on net immigration in the region in 2014, while holding all other covariates constant at their means. Individuals interviewed the day after the attack (=1) are compared with individuals interviewed the day of the attack (= 0). Control variables include age, education, gender, unemployment status, retired status, television consumption and country dummies. Standard errors clustered on regions. Dashed lines signify 95 percent confidence intervals. Rug plot at horizontal axis illustrates distribution of net immigration (per 1000 inhabitants).

Figure A.4. The effect of Bataclan on attitudes towards immigration, depending on net immigration in the region in 2015



Notes: Graph shows effect of Bataclan attack on “Help Refugees” (top panel) and “Immigrants contribute a lot” (bottom panel), conditional on net immigration in the region in 2014, while holding all other covariates constant at their means. Individuals interviewed the day after the attack (=1) are compared with individuals interviewed the day of the attack (= 0). Control variables include age, education, gender, unemployment status, retired status, television consumption and country dummies. Standard errors clustered on regions. Dashed lines signify 95 percent confidence intervals. Rug plot at horizontal axis illustrates distribution of net immigration (per 1000 inhabitants).

Table A.7. The moderating effect of migration context: regression tables

| | (i) | (ii) | (iii) | (iv) |
|--|----------------------|----------------------|----------------------|----------------------|
| Terrorism (1 day before/after)=1 | -0.075*** (0.017) | -0.060*** (0.015) | -0.120*** (0.023) | -0.081*** (0.019) |
| Refugees (per 1000 pop) | 0.016*** (0.003) | 0.015** (0.006) | | |
| Terrorism (1 day before/after)=1 × Refugees (per 1000 pop) | 0.008*** (0.003) | 0.006** (0.002) | | |
| Female (1/2) | -0.005 (0.009) | -0.022** (0.010) | -0.008 (0.009) | -0.026*** (0.010) |
| Age (years) | 0.001** (0.000) | -0.000 (0.000) | 0.001*** (0.000) | 0.000 (0.000) |
| Education (1-5) | 0.045*** (0.008) | 0.039*** (0.011) | 0.047*** (0.008) | 0.041*** (0.011) |
| Unemployed | 0.010 (0.020) | -0.059*** (0.019) | -0.002 (0.020) | -0.072*** (0.019) |
| Retired | -0.034** (0.015) | -0.034*** (0.013) | -0.042*** (0.015) | -0.044*** (0.012) |
| Television | 0.026** (0.012) | 0.020 (0.013) | 0.025* (0.013) | 0.018 (0.012) |
| Immigrants (per 1000 pop) | | | 0.001** (0.000) | 0.001*** (0.000) |
| Terrorism (1 day before/after)=1 × Immigrants (per 1000 pop) | | | 0.001*** (0.000) | 0.000** (0.000) |
| Dependent variable | Help Ref. | Immig. contr. | Help Ref. | Immig. contr. |
| Observations | 5389 | 5307 | 5389 | 5307 |

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses are clustered on regions.

Table A.8. The moderating effect of migration context: ordered probit

| | (i) | (ii) | (iii) | (iv) |
|--|----------------------|----------------------|----------------------|----------------------|
| Terrorism (1 day before/after)=1 | -0.252*** (0.056) | -0.210*** (0.056) | -0.400*** (0.076) | -0.314*** (0.073) |
| Refugees (per 1000 pop) | 0.062*** (0.016) | 0.051** (0.021) | | |
| Terrorism (1 day before/after)=1 × Refugees (per 1000 pop) | 0.028*** (0.009) | 0.019** (0.009) | | |
| Female (1/2) | -0.020 (0.031) | -0.075** (0.035) | -0.029 (0.030) | -0.087*** (0.033) |
| Age (years) | 0.004** (0.001) | -0.001 (0.002) | 0.005*** (0.002) | 0.000 (0.002) |
| Education (1-5) | 0.167*** (0.028) | 0.132*** (0.039) | 0.174*** (0.027) | 0.140*** (0.038) |
| Unemployed | 0.043 (0.070) | -0.205*** (0.068) | -0.001 (0.070) | -0.251*** (0.068) |
| Retired | -0.110** (0.051) | -0.119*** (0.045) | -0.141*** (0.051) | -0.151*** (0.044) |
| Television | 0.087** (0.041) | 0.066 (0.045) | 0.084* (0.045) | 0.062 (0.043) |
| Immigrants (per 1000 pop) | | | 0.003** (0.001) | 0.003*** (0.001) |
| Terrorism (1 day before/after)=1 × Immigrants (per 1000 pop) | | | 0.002*** (0.001) | 0.001*** (0.001) |
| Dependent variable | Help Ref. | Immig. contr. | Help Ref. | Immig. contr. |
| Observations | 5389 | 5307 | 5389 | 5307 |

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses are clustered on regions.

A.7. Robustness checks

There might be additional challenges to the correct identification of a causal effect and [Muñoz *et al.* \(2019\)](#) offer a recent, comprehensive and useful discussion of the potential threats to identification when one relies on unexpected events like a terrorist attack or a natural disaster. They also suggest robustness checks, and we perform a number of them using the baseline model without interaction terms.

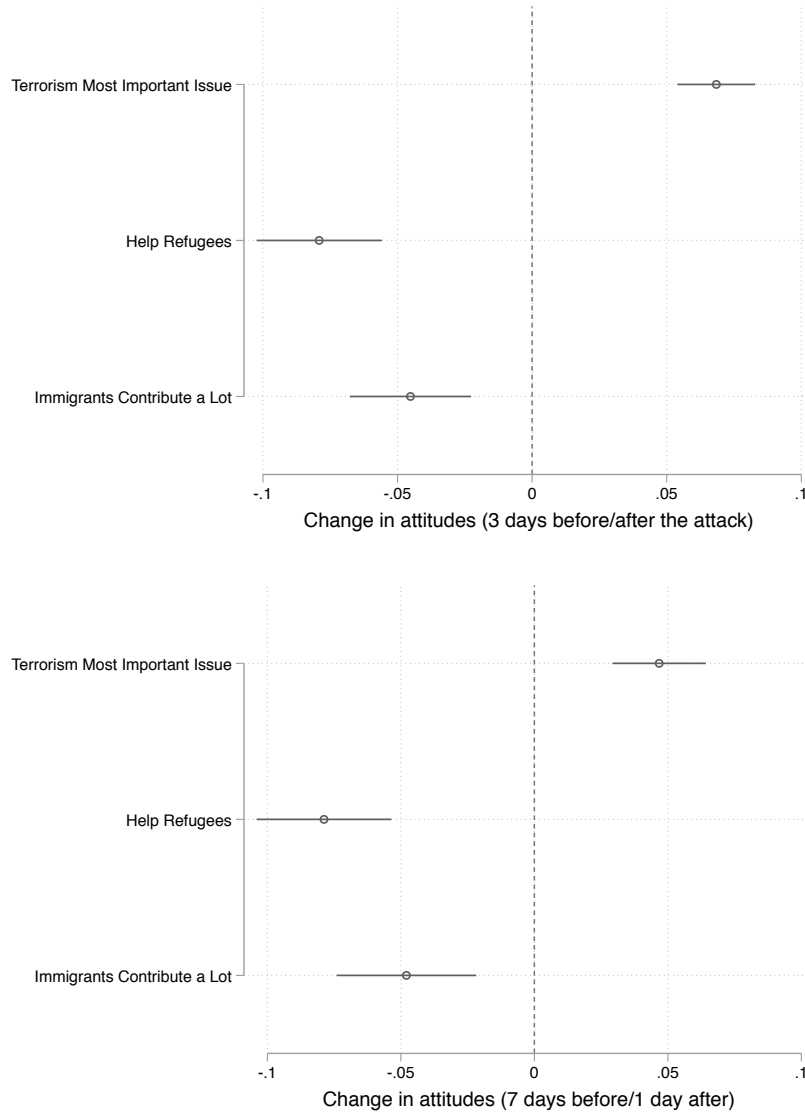
First, we use alternative bandwidths and compare a) individuals interviewed in the three days before the attack, 11 to 13 November 2015, before 21:00 (=0), with individuals interviewed in the three days after the attack, 14 to 16 November 2015 (=1); and b) individuals interviewed on the day after attack (=1) with the full week before the attack, 7 to 13 November 2015 (=0) (in lieu of one or three days). Results are displayed in Figure A.4, and, as we can see, there are no substantial changes in the size and direction of the estimated effects. In fact, a larger sample size means that the coefficients are more precisely estimated. As such, using one day before and after the attack provides more conservative estimates.⁵

Second, as unrelated time trends can drive our outcome variable, we estimate the effect of a placebo treatment at the left of the cutoff point i.e., before Friday 13th November 2015 (see Figure A.6). More specifically, we show that moving the event to Wednesday 11th November 2015 does not produce results that are significant at conventional levels. European countries do not display more negative public attitudes towards both immigrants and refugees in the aftermath of the (placebo) attack.

Third, to exclude the presence of simultaneous events, we rely on a falsification test where we show that the event does not lead to significant changes in variables that, theoretically, should not be directly affected by the Bataclan attack, but can be affected by other events that can in turn have an effect on our main variable of interest. Media have an important role in shaping the emotional reactions and sentiments, and can be important mediating factors. Also, rather than by the attack itself, effects could be mediated by citizens' views of how the government handles the attack. We thus use the level of trust in television, press and radio, and feeling about public services. As Figure A.6 shows, the Bataclan attack did not affect these variables across European countries.

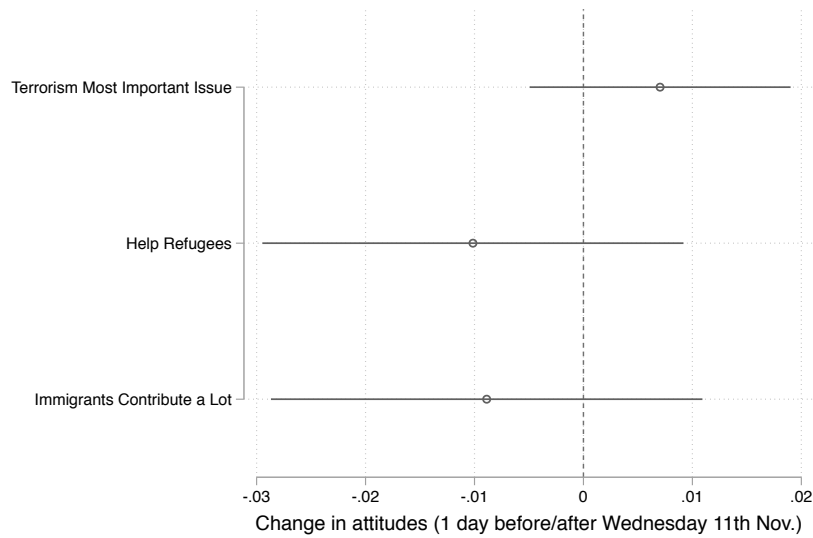
⁵Results from our multiplicative interaction models are also unaffected when we use different time windows (e.g., three days before and after the attack). See our replication material, available on Dataverse, for these additional specifications.

Figure A.5. Effect of Bataclan attack on attitudes across Europe. Different bandwidth.



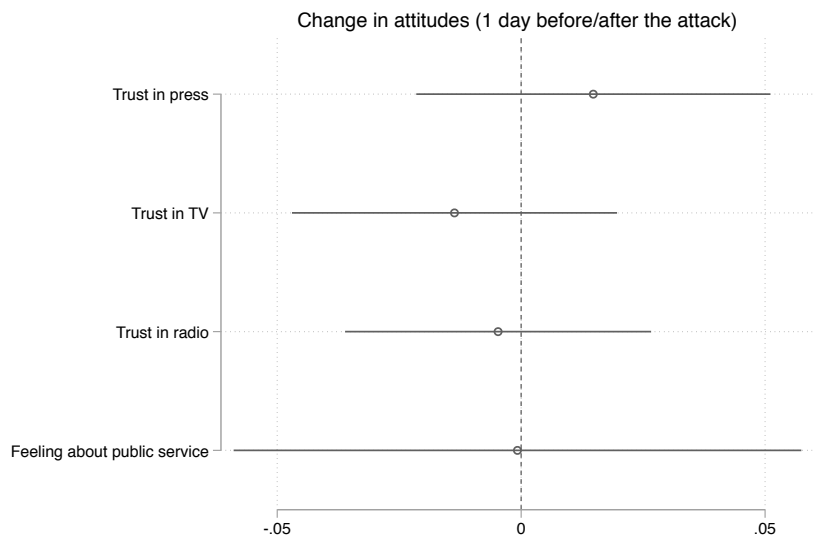
Notes: Top panel: coefficient plot comparing individuals interviewed in 3 days after attack (=1) with individuals interviewed within 3 days before (= 0). Bottom panel: coefficient plot comparing individuals interviewed the day after the attack (=1) with individuals interviewed the full week before the attack (= 0). Source: Eurobarometer 84.3. Control variables include age, education, gender, unemployment status, retired status, television consumption and country dummies. Standard errors clustered on regions. Horizontal lines represent 95% confidence intervals.

Figure A.6. Effect of Bataclan attack on attitudes across Europe. Placebo treatment.



Notes: Coefficient plot comparing individuals interviewed the day after the attack ($=1$) with individuals interviewed the day of the attack ($=0$). Simulated day of the attack is Wednesday 11th November 2015, Source: Eurobarometer 84.3. Control variables include age, education, gender, unemployment status, retired status, television consumption and country dummies. Standard errors clustered on regions. Horizontal lines represent 95% confidence intervals.

Figure A.7. Effect of Bataclan attack on attitudes across Europe. Falsification test on unrelated outcomes.



Notes: Coefficient plot comparing individuals interviewed the day after the attack ($=1$) with individuals interviewed the day of the attack ($=0$). Simulated day of the attack is Wednesday 11th November 2015, Source: Eurobarometer 84.3. Control variables include age, education, gender, unemployment status, retired status, television consumption and country dummies. Standard errors clustered on regions. Horizontal lines represent 95% confidence intervals.

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